EGC 211 Programming II
C++ Lab 2
12th August 2024

This assignment will build upon the work you did in Assignment 1, with added knowledge of C++ features and Object-oriented programming.

Submission deadline: Aug 21, 11:59 pm

Exercise:

A. Apply object-oriented design methodology you have learned in class to the problem stated in Assignment 1 and come up with at least 3 entities (more if you like) and their inter-relationships. Represent these entities in UML class diagrams showing their attributes, methods and relationships between entities. Briefly explain your design thinking in a design document (2 pages max including diagrams).
B. Implement your object-oriented design in C++ with at least 3 classes representing entities in your design, along with data members and methods. The resulting C++ program should behave exactly the same as your C program on sample inputs.

Submission Instructions:

Please submit the following to LMS as a single zip file. Separate folders for doc, source and test files:
1. A design document (2-page limit) – see details above.
2. One or more code files (.h or .cpp). You can #include <iostream> to simplify input / output and use C or C++ strings and arrays if you wish. DO NOT use other C++ library functions at this time. Comment your files, C++ classes, functions, other data structures and code as needed. Code must be readable and maintainable by someone other than yourself who may not have access to your design document. You can include scripts you use for testing if you wish.
3. One or more input text files that you use to populate venues and calendars and test your program. Don't just provide inputs for happy path but test for error conditions as well and provide all the input files you have tested your program with. Use descriptive names in the test files to indicate their purpose e.g. populate_venues.txt, wrong_date_error.txt etc.

Please also submit only the source folder to DOMjudge (instructions to follow).